

missed taking several eggs by their being knocked from the nest by the startled bird as she flew off.

This fine pigeon is not uncommon in the various mountain ranges of Cochise County, Arizona, and there seems to be a general willingness on the part of hunters to observe the closed season. This is not so true among the farmers, but comparatively little damage is done thereby, as the class of farmers is not a very numerous one with us. I hope the observance of the closed season will lead to an increase in the number of pigeons, but I think two years more at least should be added to it. An effort will be made next year to secure such legislation in this state.

Tombstone, Arizona, February 25, 1916.

THE SPEED OF FLIGHT IN CERTAIN BIRDS

By ALEXANDER WETMORE

DURING early November, 1914, while carrying on field work around Tulare and Buena Vista lakes, California, in company with Mr. Tipton Matthews, Deputy Game Warden of Kern County, I had excellent opportunity for observing the speed of flight of certain birds. We had our headquarters at Lemoore while in the northern part of the area, and daily made trips back and forth to the shore line of Tulare Lake in Mr. Matthews' auto. Work around Buena Vista Lake was carried on with Bakersfield as a base. In the open valley birds of various species were abundant, and in traveling about I had leisure to watch them. Often Horned Larks or other birds flew up close at hand and maintained a course parallel to that of the car. On such occasions Mr. Matthews increased our speed gradually until we were travelling at a rate equal to that of the bird. At the same time I kept close watch of the bird and the speedometer. In this way we were able to gauge the speed of flight of these individuals with a fair amount of accuracy. Following is a summary of the observations made. Unless otherwise stated the notes refer to a single individual.

Species	Locality	Date	Rate of flight in miles per hour
<i>Ardea herodias</i>	Tulare Lake,	Calif. November 7, 1914	28
" "	" "	" "	28
<i>Buteo b. calurus</i>	Bakersfield,	" "	10, "
<i>Cerchneis s. phalaena</i>	"	" "	" "
" " "	"	" "	" "
<i>Colaptes c. collaris</i>	Tulare Lake,	" "	8, "
<i>Otocoris a. actia</i>	" "	" "	6, "
" " "	" "	" "	7, "
" " " (several)	" "	" "	" "
" " " (2)	" "	" "	8, "
" " " (3)	" "	" "	" "
" " " (several)	Bakersfield	" "	10, "
<i>Corvus c. sinuatus</i>	Foot of Tejon Pass,	" "	" "
<i>Lanius l. gambeli</i>	Tulare Lake,	" "	6, "

Horned Larks were more abundant than other species along the roads, which accounts for the number of tests made with them. It is assumed that they were all *Otocoris a. actia*, as specimens collected belong to that form. Their speed of flight, as shown in the table, varied from 22 to 28 miles per hour. In some instances observations were made on two or three birds at the same time or, on two occasions, on small flocks. In one test a Horned Lark travelling parallel to the car was easily outdistanced with a speed of 30 miles per hour.

Two Great Blue Herons observed separately travelled at exactly the same speed. The rate of flight of a Western Redtail was found to be 22 miles per hour. One Sparrow Hawk that flew parallel with us for nearly a quarter of a mile also maintained an even rate of 22 miles.

In these observations the birds that were timed were all near at hand. The two Great Blue Herons were about seventy yards away, the individuals of the other species much nearer. As the distance of the bird from the car increased there was an increase in liability to error, but in the case of these two herons, which were gauged separately, the speed registered the same, and all of the readings may be considered fairly accurate. With the Horned Larks the observations were made often at a distance of only 30 or 40 feet. With all of these birds only those pursuing a direct flight were recorded. When the course was erratic (from side to side) the birds were disregarded.

In examining the results a surprising agreement is found in the rate of flight of birds entirely unrelated, and in species varying greatly in size. There is no doubt that if frightened any of those observed might have made a more rapid course, but I believe that the figures show approximately normal flight in all. That these speeds fall far below those attributed to birds in general will, I think, be appreciated at a glance.

Washington, D. C., March 31, 1916.

A VISIT TO HAT AND EGG ISLANDS, GREAT SALT LAKE

By R. H. PALMER

WITH FIVE PHOTOS BY A. O. TREGANZA

ON THE 14th day of May, 1915, four members of the Salt Lake branch of the Cooper Club began a trip planned for the purpose of visiting the two principal bird rookeries located on the islands of Great Salt Lake.

The party left Salt Air at 4 P. M. and encountered a calm for several hours in which very little progress was made. Time, however, did not rest heavily on the party. The cool afternoon followed by a gorgeous sunset, the flight of an occasional bird, the ever present snow-covered hills, and the gentle, restful rocking of the boat, tuned with the pulse of the waters, were all conducive to bringing forward to the present memories of past experiences as well as comments appreciative of our most charming and care dispelling surroundings. The hours until sunset came and went, and finally the sun slowly passed down behind the western hills and the time of shadows and haze followed, adding mystery to the strange outlines of earth and sky and water, while the friendly little wavelets snuggled warmly up to the sides of